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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/873,596 | 06/04/2001 | William G. Evans | MS 167387.1 | 3793 |

27195 7590 05/28/2004

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CLEVELAND, OH 44114

EXAMINER

KHATRI, ANIL

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2124

3

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,596

Applicant(s)

EVANS ET AL.

Examiner

Anil Khatri

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22-34, 36-38, 40-59 is/are rejected.
- 7) ☐ Claim(s) 21,35 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Method and System for Editing Software Programs".

Claim Rejections - 35 USC § 102

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-59 are rejected under 35 U.S.C. 102(e) as being anticipated by *Trowbridge et al.* USPN 6,484,313

Regarding claims 1, 20-22, 36 and 53-58

Trowbridge et al. teaches,

- executing a first portion of the native code component (figure 5);
- suspending execution of the native code component at a first point (figures 4 and 5);
- allowing a user to edit the source code component to create an edited source code component (column 12, lines 1-10, "the user may have... to native code");
- compiling the edited source code component using a source compiler to create an edited intermediate language component (figure 2);
- compiling the edited intermediate language component using an intermediate (figures 2-4);

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- language compiler to create an edited native code component (figure 5, column 2, lines 37-47, “ the conversion from... run time penalties”); and
- executing the edited native code component beginning at the first point (column 12, lines 58-67, the native code.. execution is needed”).

Regarding claims 2-4 7, 23, 37 and 40

Trowbridge et al. teaches,

- allowing a user to edit the source code component comprises allowing the user to add a new field to an object of a class (column 10, lines 7-18, “ versioning includes storing... class by class basis”).

Regarding claims 8 , 41 and 44

Trowbridge et al. teaches,

- the new method is a virtual method (column 1, lines 10-67)

Regarding claims 5, 9-11, 24-27, 34, 38, 42, 43 and 47

Trowbridge et al. teaches,

- compiling the edited intermediate language component comprises extending a virtual method table associated with the program to accommodate the new method to create an extended virtual method table, and wherein executing the edited native code component comprises employing the extended virtual method table (column 13, lines 9-17, “for example reading the table... execution engine”).

Regarding claims 12, 28 and 45

Trowbridge et al. teaches,

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- second memory portion is located so as to maximize a slot index (column 7, lines 7-21, “this native code is then stored... hard disk drive”).

Regarding claims 13, 14, 18, 19, 29, 32, 46, 51 and 52

Trowbridge et al. teaches,

- allowing a user to edit the source code component comprises allowing the user to change an existing method in the source code (column 12, lines 1-10, “the user may have... to native code”).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 15, 33 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Trowbridge et al USPN 6,484,313 taken with *Sauntry et al* USPN 6,327,702

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Regarding claims 15, 33 and 48

Rejection of claim 1 is incorporated further recited limitations “existing method is on at least one thread call stack” are not fairly suggested by *Trowbridge et al* however *Sauntry et al teaches*,

- allowing the user to add a new variable to the existing method when the existing method is on at least one thread call stack (figure 4, column 7, lines 10-17, “the JVM is stack based... no longer in use”, column 8, lines 45-65). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine stack implementation in editing native code. The modification would have been obvious because one of ordinary skill in the art would have been motivated to combine stacks operations for executable code to be called directly during runtime for faster execution.

Regarding claims 16, 30, 49 and 59

Trowbridge et al teaches,

- executing the edited native code component comprises substituting edited native code corresponding to the existing method upon a return to the method (figure 5, column 13, lines 1-7, “this new native code...been described”).

Regarding claims 17, 31 and 50

Trowbridge et al teaches

- determining a return to the method using a breakpoint (column 13, lines 4-6, may also be flagged..”).

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Allowable Subject Matter

Claims 21, 35 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- USPN 6560774
- USPN 6389590
- USPN 6412107
- USPN 6269475
- USPN 6237135

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anil Khatri, Primary Examiner whose telephone number is 703-305-0282. The examiner can normally be reached on M-F 8:30-5:00 PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ANIL KHATRI
PRIMARY EXAMINER